AG910-1



# Decline Slows Again in March; PMI Rises to 40.0%; Price Index Slides to 38.6%

## MARCH REPORT

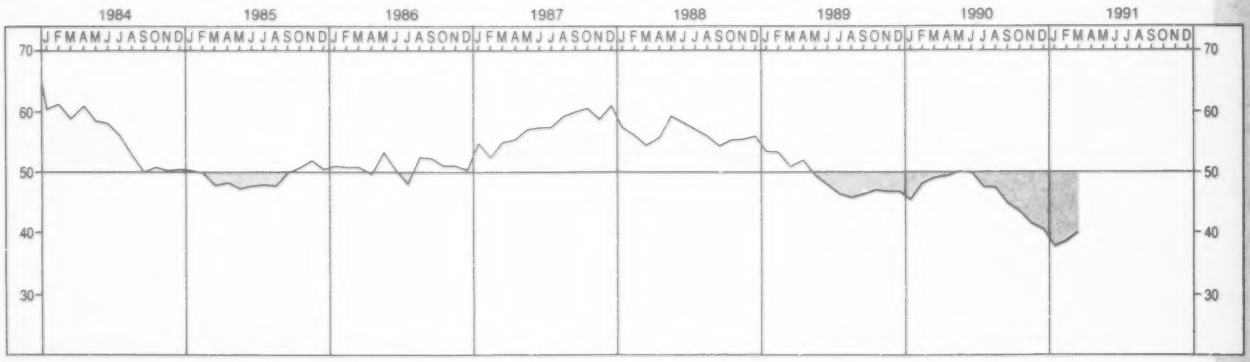
**Analysis by the National Association of Purchasing Management Business Survey Committee; chair, Robert J. Bretz, C.P.M., director of corporate purchasing, Pitney Bowes, Inc.**

The U.S. economy declined in March 1991, marking the second consecutive quarterly decline, although the rate of the decline diminished for the second consecutive month, say the nation's purchasing executives in their latest **Report on Business**. The Production Index declined for the eighth consecutive month, but the rate of decline was less for the second consecutive month. The New Orders Index in March declined for the ninth consecutive month although the rate of decline was significantly less for the second consecutive month.

The rate of decline in the Supplier Deliveries Index in March was slightly greater than in February and January, confirming the relative ease in obtaining products and the decreasing number of items in short supply. Inventories declined for the 28th consecutive month, although at the lowest rate of decline since August 1990. The Employment Index, a lagging indicator, declined in March for the 26th consecutive month, and is the lowest since November 1982 (the trough of the previous recession). The Price Index declined in March for the third consecutive sharp drop in prices. This suggests that there will be declines in the Producer Price Index and lower increases in the Consumer Price Index in the months ahead. New Export Orders expanded sharply in March, while Imports declined for the 11th consecutive month, although at a lesser rate.

The **Report** was issued by Robert J. Bretz, C.P.M., chairman of the National Association of Purchasing Management's Business Survey Committee, and director of corporate purchasing at Pitney Bowes, Inc. Said Bretz, "Although March concluded the second consecutive quarterly decline in the economy, it also registered the second consecutive month of encouraging signals that we may have seen the bottom of the declining trend in January 1991. The New Orders Index, although still in a decline, rose significantly for the second consecutive month, and the sharp decrease in prices strongly suggests decreasing future inflation. Overall, the light at the end of the tunnel got a little brighter in March, and the economy is clearly moving in the right direction."

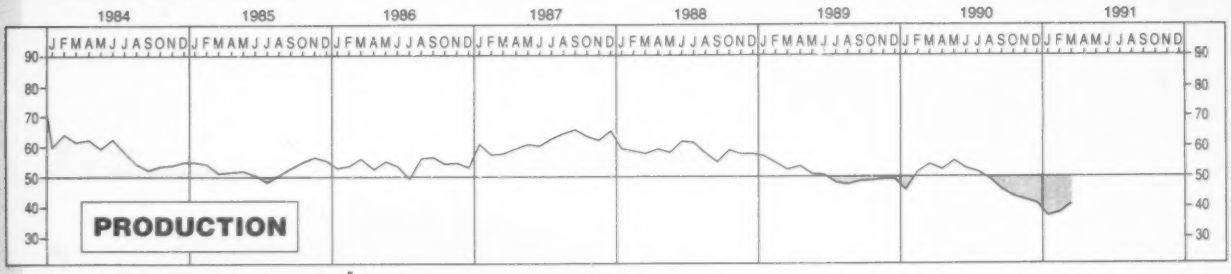
**PURCHASING MANAGERS' INDEX**




## PURCHASING MANAGERS' INDEX (PMI)

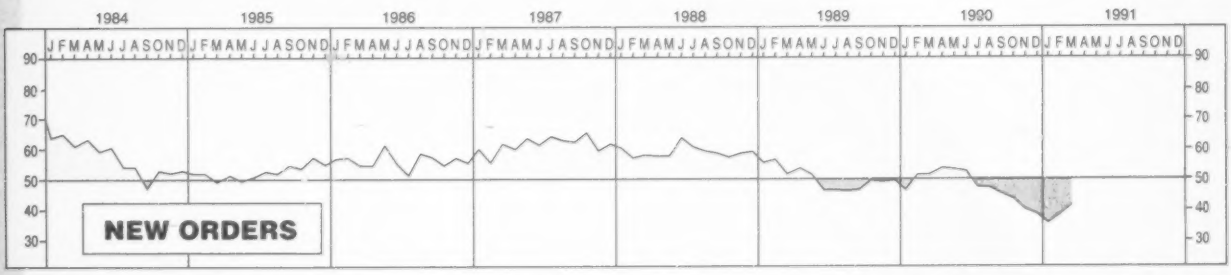
| | | | |
|---|---|---|---|
| March '90 | 49.0 | October '90 | 43.6 |
| April '90 | 49.4 | November '90 | 41.6 |
| May '90 | 50.1 | December '90 | 40.5 |
| June '90 | 49.9 | January '91 | 37.7 |
| July '90 | 47.6 | February '91 | 38.5 |
| August '90 | 47.4 | March '91 | 40.0 |
| September '90 | 44.9 | | |

The Purchasing Managers' Index (PMI) rose to 40.0% in March, up from 38.5% in February and the 10th consecutive month below 50%. However, it is the second consecutive improvement for the PMI. A reading below 50 indicates that the manufacturing economy is generally declining; above 50, that it is generally expanding. Bretz added, "March completed the second consecutive quarter that the PMI has remained below 44%, which is generally indicative of a decline in the entire economy. However, the March PMI of 40.0% is approximately the level the PMI reached by the 16th month (November 1982, 39.2%) after the previous recession began, an enlightening comparison."



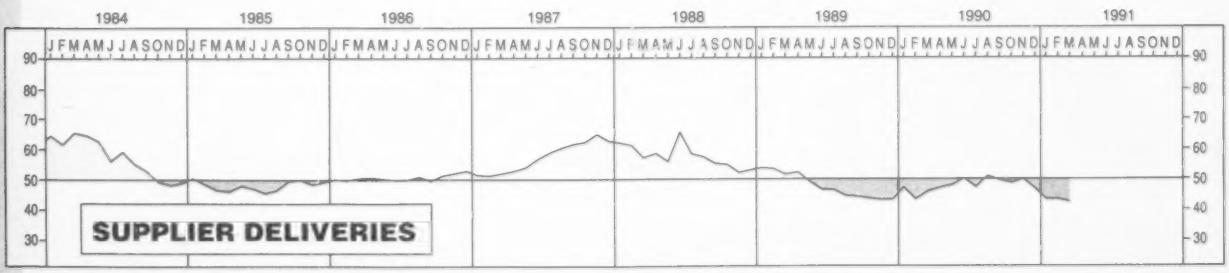

Production declined in March for the eighth consecutive month. Though still declining, the Production Index rose for the second consecutive month to 41.0%, a healthy increase from 38.1% in February. The continuing improvement in New Orders in March should result in strengthening production levels into the second quarter.

| Production | %Better | %Same | %Worse | Net | Index |
|---|---|---|---|---|---|
| March 1991 | 15 | 54 | 31 | –16 | 41.0 |
| February 1991 | 15 | 49 | 36 | –21 | 38.1 |
| January 1991 | 14 | 47 | 39 | –25 | 37.1 |
| December 1990 | 12 | 53 | 35 | –23 | 41.0 |




New Orders declined in March for the ninth consecutive month. Nevertheless, the March New Orders Index rose to 41.5% from 38.3% in February. This second consecutive sharp rise in this leading indicator and driver of the manufacturing economy appears to be trumpeting the early continuation of an upward trend.

| New Orders | %Better | %Same | %Worse | Net | Index |
|---|---|---|---|---|---|
| March 1991 | 20 | 47 | 33 | –13 | 41.5 |
| February 1991 | 17 | 45 | 38 | –21 | 38.3 |
| January 1991 | 15 | 44 | 41 | –26 | 35.7 |
| December 1990 | 15 | 40 | 45 | –30 | 38.5 |




The Supplier Deliveries Index declined in March for the seventh consecutive month. The index declined to 42.4%, down somewhat from February (43.3%) and the lowest since May 1982 (42.1%), which was during the previous recession, and reflects the relative ease in obtaining most items on schedule.

| Supplier Deliveries | %Slower | %Same | %Faster | Net | Index |
|---|---|---|---|---|---|
| March 1991 | 3 | 81 | 16 | –13 | 42.4 |
| February 1991 | 4 | 78 | 18 | –14 | 43.3 |
| January 1991 | 4 | 80 | 16 | –12 | 43.3 |
| December 1990 | 5 | 83 | 12 | – 7 | 46.8 |

### IN SHORT SUPPLY

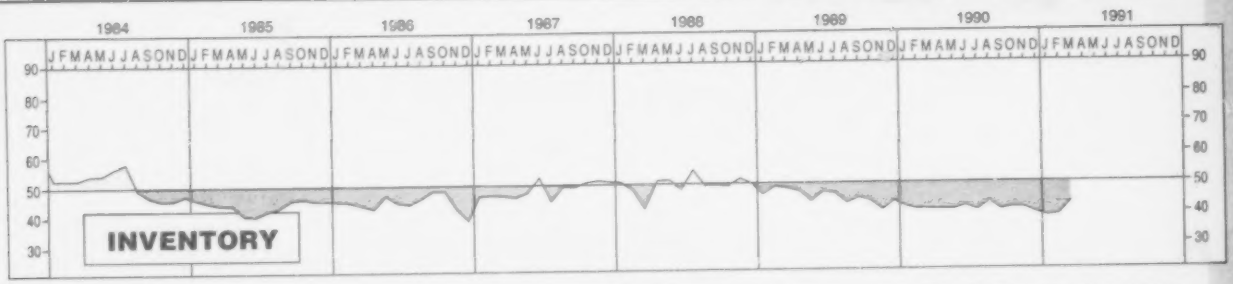
**Bearings** — 32nd consecutive month, a consequence of anti-dumping suits; **Steel Castings** — 7th consecutive month; **Caustic Soda/Soda Ash** — 46th consecutive month (used heavily in paper making, petroleum refining, and soap making); **Methyl Ethyl Ketone (MEK)** — 7th consecutive month (used heavily as a chemical solvent in surface coatings, and making resins); **DRAMS 386**.

### UP IN PRICE

**Platinum; Caustic Soda/Soda Ash** — 52nd consecutive month; **Methanol** — 2nd consecutive month (used heavily as a solvent, a motor fuel additive, and in synthesizing other chemicals); **Methyl Ethyl Ketone (MEK)** — 7th consecutive month; **Rosin** — Used in making varnish, varnish and paint dryers, inks, soap, waxes, polishes, floor coverings, paper, plastic, and sizing; **Tall Oil-Crude and Fatty Acid** — Used in making soap, greases, paint, linoleum, rubber formulations, and cutting oils; **Carbon Paper; Cotton Fabric** — 3rd consecutive month; **Silicon Wafers** — Used in making semiconductors and integrated circuits; **1 MEG. DRAMS** — 2nd consecutive month; **Beef; Casein** — Used in making molded plastics, adhesives, paints, textile finishes, paper coatings, and food processing; **Corn** — 2nd consecutive month; **Corn Starch; Orange Juice; Soybean Meal; Sugar** — After being reported down in price for the seventh consecutive month in February; **Turkey Meat**.

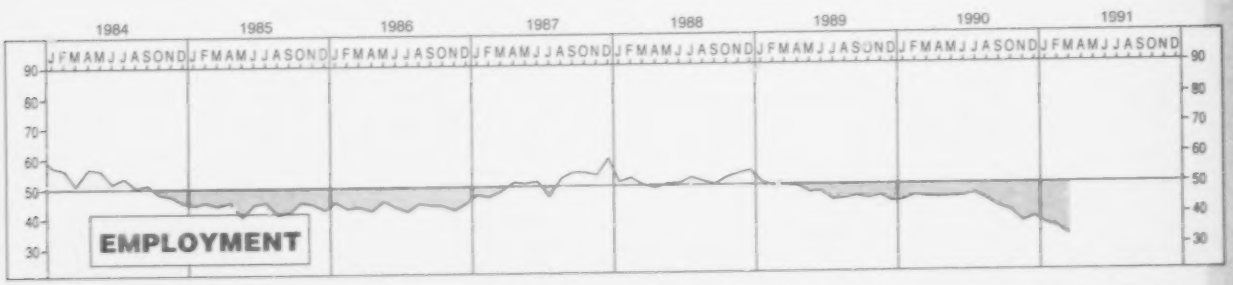
### DOWN IN PRICE

**Aluminum** — 5th consecutive month; **Aluminum Castings** — 2nd consecutive month; **Brass** — 5th consecutive month; **Copper** — 5th consecutive month; **Lead; Magnesium** — 2nd consecutive month (used heavily as a constituent of light alloys for manufacturing precision instruments); **Magnesium Wire Base; Nickel** — 5th consecutive month (used heavily in making stainless steel, plating metals, and batteries); **Rhodium** — Used heavily as an alloy with platinum and as a corrosion-resistant electroplate for protection of silverware from tarnishing; **Steel** — 2nd consecutive month; **Steel Scrap** — 5th consecutive month; **Steel Containers; Zinc** — 8th consecutive month; **Stainless Steel** — 3rd consecutive month; **Tin** — Used as a protective coating on cans, metal sheets, and other metal products; **Bearings** — 5th consecutive month; **Cable** — Used heavily in telecommunication lines;



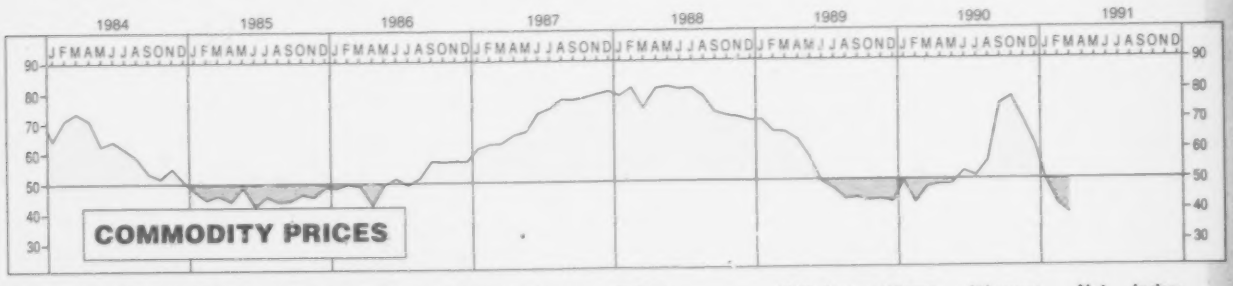

Inventories declined in March for the 28th consecutive month, although at the lowest rate of decline since August 1990 (also 43.5%). This rise in the index reflects to some degree the difficulty in a declining economy to reduce inventories sufficiently to match declining production.

| Inventories | %Higher | %Same | %Lower | Net | Index |
|---|---|---|---|---|---|
| March 1991 | 18 | 55 | 27 | – 9 | 43.5 |
| February 1991 | 15 | 52 | 33 | –18 | 39.2 |
| January 1991 | 15 | 47 | 38 | –23 | 38.6 |
| December 1990 | 15 | 47 | 38 | –23 | 39.7 |




Employment declined in the manufacturing economy for the 26th consecutive month. The Employment Index fell to 32.7% in March, down from 35.4% in February, and is the lowest level since November 1982. This lagging indicator will generally not bottom out for some months after the leading indicators have changed direction.

| Employment | %Higher | %Same | %Lower | Net | Index |
|---|---|---|---|---|---|
| March 1991 | 5 | 58 | 37 | –32 | 32.7 |
| February 1991 | 5 | 60 | 35 | –30 | 35.4 |
| January 1991 | 7 | 57 | 36 | –29 | 36.5 |
| December 1990 | 7 | 61 | 32 | –25 | 38.7 |



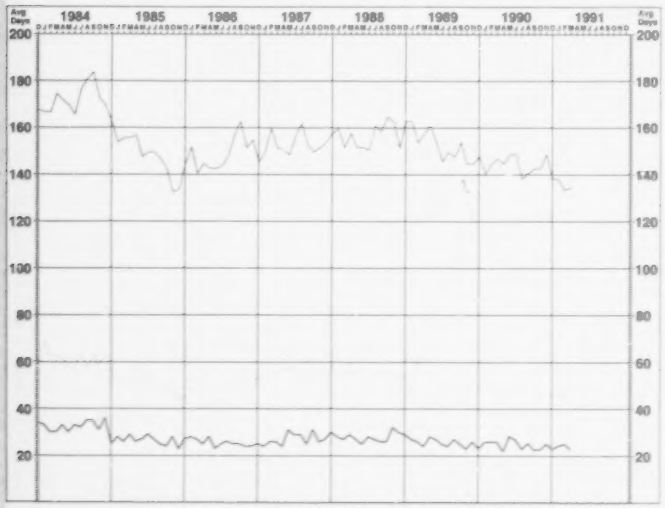

By a margin of almost 4 to 1, more purchasers reported paying lower prices than higher prices in March. The March Price Index declined to 38.6%, a sharp drop from 41.8% in February and the lowest level registered since November 1982 (37.3%). The March index plunged from October's 77.3% and is signalling a trend toward lower inflation.

| Prices | %Higher | %Same | %Lower | Net | Index |
|---|---|---|---|---|---|
| March 1991 | 8 | 64 | 28 | –20 | 38.6 |
| February 1991 | 12 | 60 | 28 | –16 | 41.8 |
| January 1991 | 25 | 54 | 21 | + 4 | 49.1 |
| December 1990 | 32 | 55 | 13 | +19 | 61.2 |

**Uncoated Offset Paper** — 3rd consecutive month; **Corrugated Shipping Containers** — 13th time in 14 months; **Linerboard; Wood; Wood Pulp; Alcohols** — Used as a solvent in laboratories and in industries; **Benzene** — 2nd consecutive month (used heavily in making medicinal chemicals, dyes, varnishes, lacquers, and resins); **Butadiene** — Used heavily as a polymer component in making synthetic rubber; **Ethylene** — 2nd consecutive month (used heavily in making ethylene oxide, plastic resins, and glycols); **Ethylene Glycol** — Used heavily in making antifreeze, brake fluid, plastic paint, and ink; **Glycerine** — 3rd consecutive month (used in various ways in confectionaries, cosmetics, soaps, and tobacco); **Monosodium Glutamate** — Used heavily as a food flavor enhancer; **Phenol** — Used heavily in making phenolic resins; **Plastic Resins** — After being reported up in price for the 6th consecutive month in February; **Polyethylene** — After being reported up in price for the 6th consecutive month in February 1991 (used heavily in making plastic packaging materials, kitchenware, tank and pipe linings, paper coatings, and textile stiffeners); **Polypropylene** — 3rd consecutive month; **Polystyrene** — 2nd consecutive month (used heavily in making plastic foam packaging, cups, and plates); **Propylene** — 2nd consecutive month (used heavily in making polypropylene plastic and acetone, isopropyl alcohol, phenol, propylene oxide, and other chemicals); **Solvents** — 3rd consecutive month; **Styrene** — 4th consecutive month; **Titanium Dioxide** — 2nd consecutive month (a lead-free pigment used as a whitener in coatings, paints, paper, and other industrial applications); **Toluene** — 4th consecutive month (used heavily in making explosives, dyes, and benzoic acid, as a solvent in paint and as a gasoline additive); **Xylene** — 4th consecutive month (used heavily in making benzoic acid, phthalic anhydride, polyester fibers, and dyes); **Zinc Oxide** — 5th time in 7 months (used heavily as a pigmentation in paints and inks, in cosmetics, driers, quick-setting cement, and copier paper); **Antifreeze; Diesel Fuel** — 3rd consecutive month; **Fuel Oil** — 2nd consecutive month; **Gasoline** — 3rd consecutive month; **Natural Gas** — 3rd consecutive month; **Propane** — 3rd consecutive month; **Lube Additives** — Chemical additives for making lubricating oil and grease; **Petrochemicals** — 2nd consecutive month; **Glass; Ceramic Capacitors; 4 MEG. DRAMS** — 2nd consecutive month; **Microprocessors** — 2nd consecutive month; **Semiconductors; High Fructose Corn Syrup** — 5th consecutive month; **Malt** — Used heavily in brewing beer; **Transportation Charges** — 2nd consecutive month.

## BUYING POLICY

Leadtimes for Capital Expenditures rose slightly in March but declined slightly for Production Materials and Maintenance, Repair, and Operating (MRO) Supplies. The average leadtimes for Capital Expenditures rose to 135 days in March, up from 134 days in February, but still significantly lower than 149 days in November 1990. The average leadtimes for Production Materials fell to 47 days in March, down from 48 days in February. The average leadtimes for MRO Supplies shortened to 23 days, down from 25 days in February.

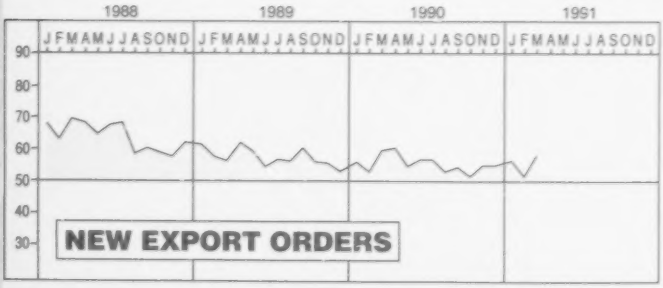


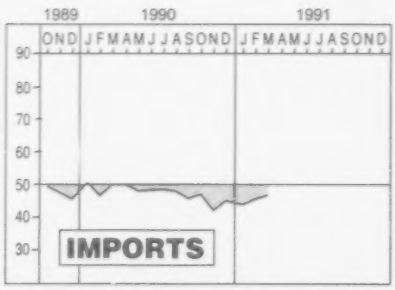

## PERCENT REPORTING

| Capital Expenditures | Hand to Mouth | 30 Days | 60 Days | 90 Days | 6 Mos. and Longer | 1 Year + Days | Avg. Days |
|---|---|---|---|---|---|---|---|
| March | 12 | 8 | 12 | 23 | 32 | 13 | 135 |
| February | 12 | 8 | 13 | 21 | 34 | 12 | 134 |
| January | 12 | 7 | 14 | 21 | 32 | 14 | 138 |
| December | 13 | 7 | 10 | 23 | 33 | 14 | 139 |

| Production Materials | Hand to Mouth | 30 Days | 60 Days | 90 Days | 6 Mos. and Longer | 1 Year + Days | Avg. Days |
|---|---|---|---|---|---|---|---|
| March | 19 | 40 | 25 | 13 | 2 | 1 | 47 |
| February | 21 | 40 | 25 | 10 | 2 | 2 | 48 |
| January | 20 | 39 | 28 | 11 | 1 | 1 | 45 |
| December | 21 | 43 | 22 | 10 | 2 | 2 | 47 |

| MRO Supplies | Hand to Mouth | 30 Days | 60 Days | 90 Days | 6 Mos. and Longer | 1 Year + Days | Avg. Days |
|---|---|---|---|---|---|---|---|
| March | 46 | 41 | 10 | 3 | 0 | 0 | 23 |
| February | 41 | 45 | 12 | 2 | 0 | 0 | 25 |
| January | 45 | 43 | 9 | 2 | 1 | 0 | 24 |
| December | 46 | 43 | 8 | 3 | 0 | 0 | 23 |




New Export Orders increased sharply in March. The New Export Orders Index, not seasonally adjusted, surged to 58.5% in March, up from 52.0% in February and is the highest since April 1990. The percentage of members exporting fell to 75%, down from 77% last month, but still above the average for all of 1990 (74%).

| New Export Orders | %Exporting | %Better | %Same | %Worse | Net | Index |
|---|---|---|---|---|---|---|
| March 1991 | 75 | 25 | 67 | 8 | +17 | 58.5 |
| February 1991 | 77 | 19 | 66 | 15 | + 4 | 52.0 |
| January 1991 | 75 | 25 | 63 | 12 | +13 | 56.5 |
| December 1990 | 74 | 21 | 68 | 11 | +10 | 55.0 |

Imports declined in March for the 11th consecutive month, although at a slightly lesser rate than during the previous six months. The Imports Index, not seasonally adjusted, rose to 47.0%, up from 46.0% in February. The percentage of members importing in March remained the same as in February (76%).

| Imports | %Importing | %Higher | %Same | %Lower | Net | Index |
|---|---|---|---|---|---|---|
| March 1991 | 76 | 10 | 74 | 16 | – 6 | 47.0 |
| February 1991 | 76 | 12 | 68 | 20 | – 8 | 46.0 |
| January 1991 | 79 | 9 | 68 | 23 | –14 | 43.0 |
| December 1990 | 76 | 8 | 73 | 19 | –11 | 44.5 |

## DATA AND METHOD OF PRESENTATION

The **Report on Business** is based on data compiled from monthly replies to questions asked of purchasing executives in over 300 industrial companies. Membership of the Business Survey Committee is diversified geographically, based on value added by state, and by Standard Industrial Classification (SIC) category, based on each industry's contribution to Gross National Product (GNP). Twenty industries in 50 states are represented on the committee.

Survey responses reflect the change, if any, in the current month compared to the previous month. For each of the indicators measured [New Orders, New Export Orders, Imports, Production, Supplier Deliveries, Inventories, Employment and Prices], this report shows the percentage reporting each response, the net difference between the number of responses in the positive economic direction (higher, better and slower for Supplier Deliveries), and the negative economic direction (lower, worse and faster for Supplier Deliveries), and the diffusion index.

Responses are raw data and are never changed. The diffusion index includes the percent of positive responses plus one-half of those responding the same (considered positive). The resulting single index number is then seasonally adjusted to allow for the effects of repetitive intra-year variations resulting primarily from normal differences in weather conditions, various institutional arrangements and differences attributable to non-moveable holidays. All seasonal adjustment factors are supplied by the U.S. Department of Commerce and are subject annually to relatively minor changes when conditions warrant them. A sufficient history is not yet available for the New Export Orders and Imports Indexes to determine seasonal adjustment factors. Therefore, these two indexes are not seasonally adjusted. The Purchasing Managers' Index (PMI) is a composite index based on the seasonally adjusted diffusion indexes for five of the indicators (New Orders, Production, Supplier Deliveries, Inventories and Employment) with varying weights applied

Diffusion indexes have the properties of leading indicators and are convenient summary measures showing the prevailing direction of change and the scope of change. An index reading above 50% indicates that the economy is generally expanding; below 50%, that the economy is generally declining. The distance from 50% is indicative of the strength of the expansion or decline.

Responses to Buying Policy reflect the percent reporting the current months lead time, the approximate weighted number of days ahead for which commitments are made for Production Materials, Capital Expenditures and Maintenance, Repair and Operating (MRO) Supplies, expressed as hand-to-mouth (5 days), 30 days, 60 days, 90 days, 6 months (180 days), a year or more (360 days) and the weighted average number of days. These responses are raw data, never revised and not seasonally adjusted since there is no significant seasonal pattern.

AGT10-1

## Report On Business®

# Economic Decline Slowed in April; PMI Rises to 42.1%; Price Index Slips to 36.3% — Lowest in 9 Years

## APRIL REPORT

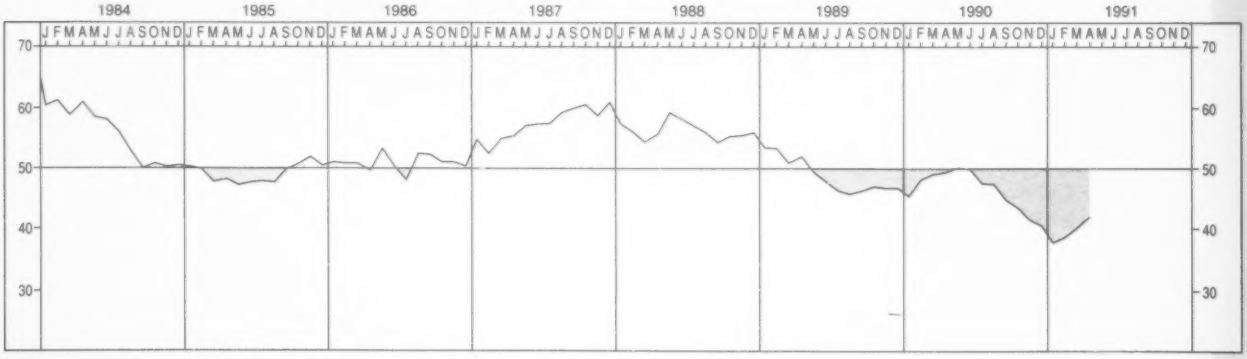
**Analysis by the National Association of Purchasing Management Business Survey Committee; chair, Robert J. Bretz, C.P.M., director of corporate purchasing, Pitney Bowes, Inc.**

The U.S. economy declined in April 1991, for the seventh consecutive month, although the rate of the decline was less for the third straight month, say the nation's purchasing executives in their latest **Report on Business**. The Production Index declined in April for the ninth consecutive month, but for the third straight time, the rate of decline was less than the previous month. Although the New Orders Index also declined in April ~~for the 10th~~ consecutive time, the rate of decline was significantly less for the third month in a row.

The Employment Index, a lagging indicator, declined in April for the 27th consecutive month, but at a lesser rate than last month. The rate of decline in the Supplier Deliveries Index was lower in April mirroring the same slowing in the rates of decline in both Production and New Orders. The Inventories Index declined sharply in April. The Price Index declined in April for the fourth consecutive month and is the lowest since April 1982. Once again, this suggests more declines in the Producer Price Index and lower increases in the Consumer Price Index over the next few months. New Export Orders expanded sharply in April, although at a lesser rate than in March, while Imports continued to decline for the 12th consecutive month, suggesting continued improvement in reducing the trade deficit.

The **Report** was issued by Robert J. Bretz, C.P.M., chairman of the National Association of Purchasing Management's Business Survey Committee, and director of corporate purchasing at Pitney Bowes, Inc. Said Bretz, "Although the manufacturing sector and the overall U.S. economy are still declining, the rate of decline lessened for the third consecutive month. It would be difficult to deny that the more leading indexes, the New Orders, Supplier Deliveries, and Purchasing Managers' Indexes, have formed a bottom over the past three months and are indicating a gradual trend toward recovery. The decline in inflation and low inventory level suggest the trend will not be short-lived."

**PURCHASING MANAGERS' INDEX**

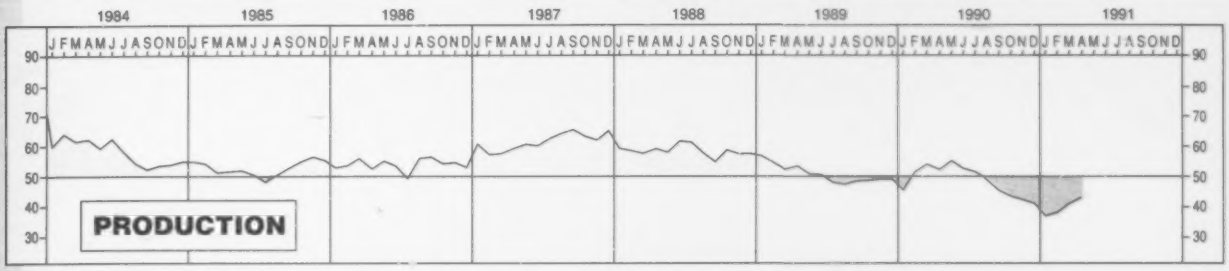



### PURCHASING MANAGERS' INDEX (PMI)

| | | | |
|---|---|---|---|
| April '90 | 49.4 | November '90 | 41.6 |
| May '90 | 50.1 | December '90 | 40.5 |
| June '90 | 49.9 | January '91 | 37.7 |
| July '90 | 47.6 | February '91 | 38.5 |
| August '90 | 47.4 | March '91 | 40.0 |
| September '90 | 44.9 | April '91 | 42.1 |
| October '90 | 43.6 | | |

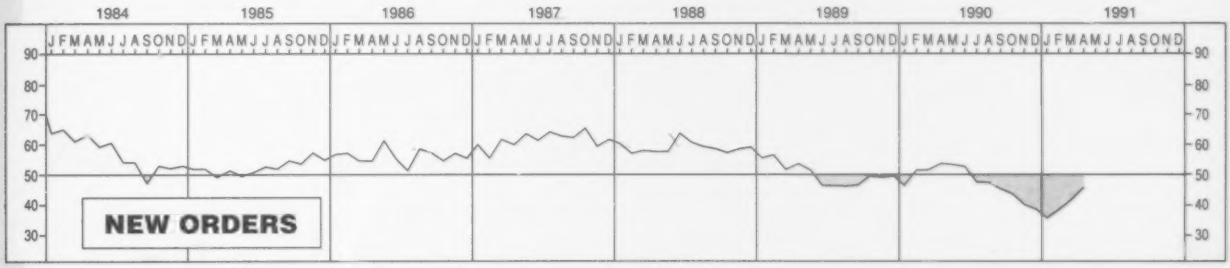
The Purchasing Managers' Index (PMI) rose to 42.1% in April, up from 40.0% in March and the 11th consecutive month below 50%. However, it is the third consecutive month that this leading indicator has registered higher than the previous month. A reading below 50 indicates that the manufacturing economy is generally declining; above 50, that it is generally expanding. Bretz added, "April marked the seventh consecutive month that the PMI has remained below 44%, which is generally indicative of a decline in the overall economy. In the previous recession in 1981/1982, the PMI remained below 44% for 16 months. If the PMI continues to improve at about the same rate as the past month, the decline in the overall economy could end by June (1991)."

# BUSINESS



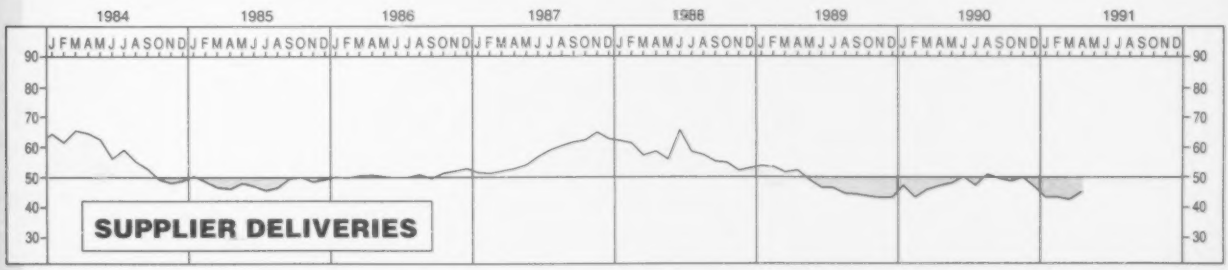

Production declined in April for the ninth consecutive month, although at a lesser rate than during the previous five months. The Production Index rose to 43.1%, up from 41.0% in March. The sharp increase in the New Orders Index should result in similar improvements in production levels through the second quarter.

| Production | %Better | %Same | %Worse | Net | Index |
|---|---|---|---|---|---|
| April1991 | 17 | 60 | 23 | - 6 | 43.1 |
| March 1991 | 15 | 54 | 31 | -16 | 41.0 |
| February 1991 | 15 | 49 | 36 | -21 | 38.1 |
| January 1991 | 14 | 47 | 39 | -25 | 37.1 |




New Orders declined in April for the 10th consecutive month. The New Orders Index rose to 45.9%, a sharp move upward from 41.5% in March. This third consecutive rise in this leading indicator continues to signal lower declines in production in the months ahead.

| New Orders | %Better | %Same | %Worse | Net | Index |
|---|---|---|---|---|---|
| April 1991 | 26 | 49 | 25 | + 1 | 45.9 |
| March 1991 | 20 | 47 | 33 | -13 | 41.5 |
| February 1991 | 17 | 45 | 38 | -21 | 38.3 |
| January 1991 | 15 | 44 | 41 | -26 | 35.7 |




The Supplier Deliveries Index declined in April for the eighth consecutive month. However, the index rose to 45.1%, up significantly from 42.4% in March, which was the lowest reading since May 1982 (42.1%). The increase reflects the improvement in production over the previous three months.

| Supplier Deliveries | %Slower | %Same | %Faster | Net | Index |
|---|---|---|---|---|---|
| April 1991 | 3 | 84 | 13 | -10 | 45.1 |
| March 1991 | 3 | 81 | 16 | -13 | 42.4 |
| February 1991 | 4 | 78 | 18 | -14 | 43.3 |
| January 1991 | 4 | 80 | 16 | -12 | 43.3 |

### IN SHORT SUPPLY

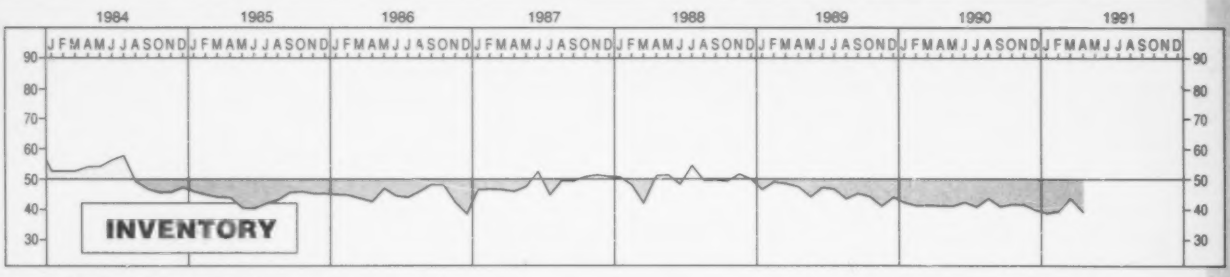
**Bearings** — 33rd consecutive month, a consequence of anti-dumping suits; **Steel Castings** — 8th consecutive month; **Caustic Soda/Soda Ash** — 47th consecutive month (used heavily in paper making, petroleum refining, and soap making); **Methyl Ethyl Ketone (MEK)** — 8th consecutive month (used heavily as a chemical solvent in surface coatings, and making resins).

### UP IN PRICE

**Nickel** — After being reported down in price in March for the 5th consecutive month (used heavily in making stainless steel, plating metals, and batteries); **Caustic Soda/Soda Ash** — 53rd consecutive month; **Methanol** — 3rd consecutive month (used heavily as a solvent, a motor fuel additive, and in synthesizing other chemicals); **Methyl Ethyl Ketone (MEK)** — 8th consecutive month; **Rosin-based Chemicals** — Used in making varnish, varnish and paint dryers, inks, soap, waxes, polishes, floor coverings, paper, plastic, and sizing; **Tall Oil-Crude and Fatty Acid** — 2nd consecutive month (used in making soap, greases, paint, linoleum, rubber formulations, and cutting oils); **Timber** — Essentially only in the northwestern U.S., where conservationists' efforts have been successful in reducing the Douglas Fir acreage the government will allow to be cut, causing shortages in lumber, chips for paper mills, and threatened reduction of log exports to the Pacific Rim; **Cotton Fabric** — 4th consecutive month; **1 Megabyte DRAMS** — 3rd consecutive month; **Beef** — 2nd consecutive month; **Corn** — 3rd consecutive month; **High Fructose Corn Syrup** — After being reported down in price in March for the 5th consecutive month; **Apple Juice Concentrate; Soybean Meal** — 2nd consecutive month.

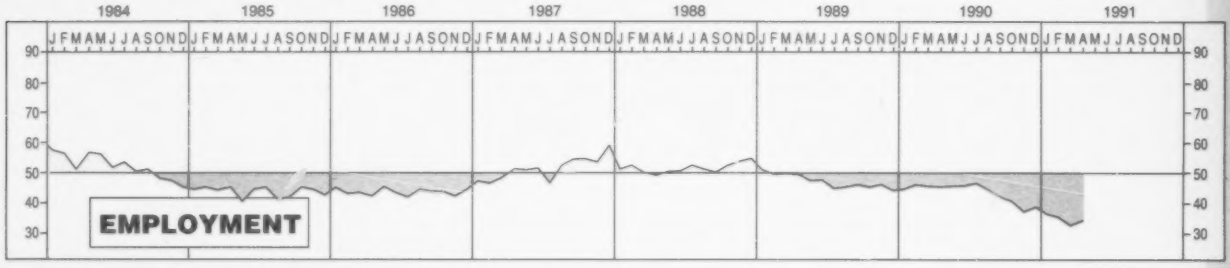
### DOWN IN PRICE

**Aluminum** — 6th consecutive month; **Aluminum Containers; Copper** — 6th consecutive month; **Magnesium** — 3rd consecutive month (used heavily as a constituent of light alloys for manufacturing precision instruments; **Platinum; Rhodium** — 2nd consecutive month (used heavily as an alloy with platinum and as a corrosion-resistant electroplate for protection of silverware from tarnishing); **Steel** — 3rd consecutive month; **Steel Scrap** — 6th consecutive month; **Steel Containers** — 2nd consecutive month; **Zinc** — 9th consecutive month (used heavily in



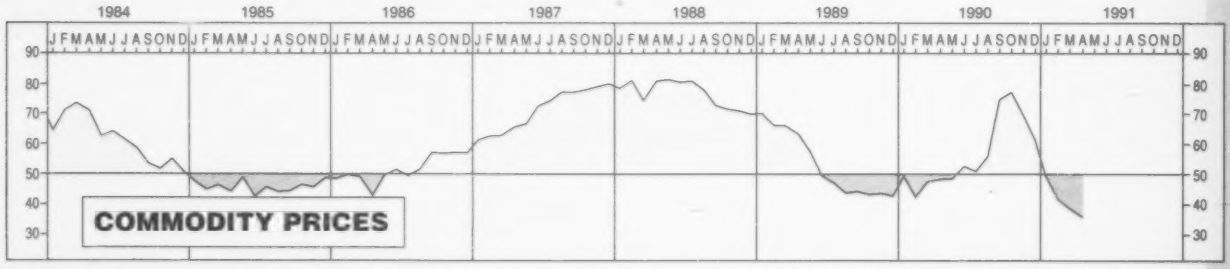

Inventories declined in April for the 29th consecutive month, at a sharply higher rate. The Inventories Index declined to 39.0%, down significantly from 43.5% in March, which was the lowest rate of decline since August 1990 (also 43.5%). The April index of 39.0% is a reaffirmation of the commitment of purchasing executives to keep inventory levels low and in proportion to production requirements.

| Inventories | %Higher | %Same | %Lower | Net | Index |
|---|---|---|---|---|---|
| April 1991 | 14 | 53 | 33 | –21 | 39.0 |
| March 1991 | 18 | 55 | 27 | – 9 | 43.5 |
| February 1991 | 15 | 52 | 33 | –18 | 39.2 |
| January 1991 | 15 | 47 | 38 | –23 | 38.6 |




Employment declined in April for the 27th consecutive month, but at a lesser rate than last month. The Employment Index rose to 34.4%, up from 32.7% in March, which was the lowest level since November 1982. Although Employment is a lagging indicator, April's index may indicate that March was the bottom of the decline in Employment and that April is the first month in an upward trend.

| Employment | %Higher | %Same | %Lower | Net | Index |
|---|---|---|---|---|---|
| April 1991 | 8 | 57 | 35 | –27 | 34.4 |
| March 1991 | 5 | 58 | 37 | –32 | 32.7 |
| February 1991 | 5 | 60 | 35 | –30 | 35.4 |
| January 1991 | 7 | 57 | 36 | –29 | 36.5 |




Prices declined in April for the fourth consecutive month. The Price Index fell to 36.3%, down from 38.6% in March, and is the lowest level in nine years (April 1982 — 35.7%, which is the lowest level of the Price Index during the previous two recessions). The index is not likely to fall much lower.

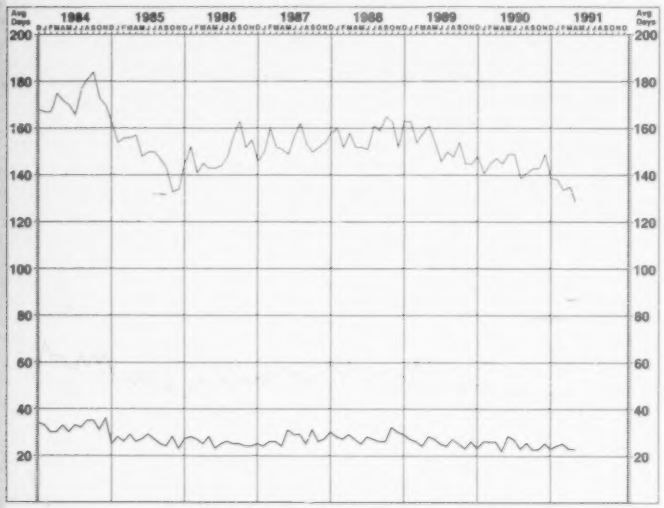
| Prices | %Higher | %Same | %Lower | Net | Index |
|---|---|---|---|---|---|
| April 1991 | 10 | 60 | 30 | –20 | 36.3 |
| March 1991 | 8 | 64 | 28 | –20 | 38.6 |
| February 1991 | 12 | 60 | 28 | –16 | 41.8 |
| January 1991 | 25 | 54 | 21 | + 4 | 49.1 |

galvanizing sheet iron, as an ingredient of alloys such as brass and bronze, as a protective coating to prevent corrosion of other metals, for electrical apparatus, dry cell batteries, building materials, and automotive equipment; **Stainless Steel** — 4th consecutive month; **Steel Fabrication; Cable** — 2nd consecutive month; **Magnet Wire; Uncoated Offset Paper** — 4th consecutive month; **Corrugated Shipping Containers** — 14th time in 15 months; **Linerboard** — 2nd consecutive month; **Paper Bags; Wood Pulp** — 2nd consecutive month; **Alcohols** — 2nd consecutive month; **Ethylene** — 3rd consecutive month (used heavily in making ethylene oxide, plastic resins, and glycols); **Ethylene Derivatives; Glycerine** — 4th consecutive month (used in confectioneries, cosmetics, soaps, and tobacco); **Methylene Chloride** — Used as a solvent for cellulose acetate, in food processing, and as a degreasing and cleaning fluid; **Phenol** — 2nd consecutive month (used heavily in making phenolic resins); **Plastic Resins** — 2nd consecutive month, after being reported up in price for the 6th consecutive month in February; **Polyethylene** — 2nd consecutive month, after being reported up in price for the 6th consecutive month in February; **Polypropylene** — 4th consecutive month (used heavily in making plastic fabric, yarns, carpets, and packaging materials); **Polystyrene** — 3rd consecutive month; **Polyvinyl Chloride (PVC)** — Used in wire and cable coating, vinyl siding, pipe tubing, textile finishing, belting, and auto interiors; **Propylene** — 3rd consecutive month; **Solvents** — 4th consecutive month; **Styrene** — 5th consecutive month; **Sulfuric Acid** — 3rd time in 4 months (used heavily in making fertilizers, dyes, adhesives, and other acids); **Titanium Dioxide** — 3rd consecutive month (a lead-free pigment used as a whitener in coatings, paints, paper, and other industrial applications); **Toluene** — 5th consecutive month (used heavily in making explosives, dyes, and benzoic acid, as a solvent in paint and as a gasoline additive); **Xylene** — 5th consecutive month (used heavily in making benzoic acid, phthalic anhydride, polyester fibers, and dyes); **Zinc Oxide** — 6th time in 8 months (used heavily as a pigmentation in paints and inks, in cosmetics, driers, quick-setting cement, and copier paper); **Nylon; Polyester; Fuel Oil** — 3rd consecutive month; **Natural Gas** — 4th consecutive month; **Petrochemicals** — 3rd consecutive month; **Fiberglass; Corn Starch** — 2nd time in 3 months; **Sugar** — 8th time in 9 months; **Soybeans and Soybean Oil; Transportation Charges** — 3rd consecutive month.

## BUYING POLICY

Leadtimes for Capital Expenditures fell sharply in April. The average leadtimes for Capital Expenditures dropped to 129 days, down significantly from 135 days in March, and is the lowest since NAPM began tracking leadtimes in January 1975. Capital purchases always lag the economy and April's report confirms this fact.

The average leadtimes for Production Materials also shortened in April, to 46 days, down from 47 days in March. However, average leadtimes for Maintenance, Repair, and Operating (MRO) Supplies remained the same as in March (23 days).

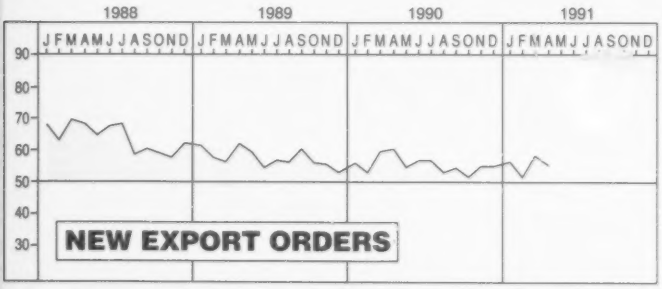


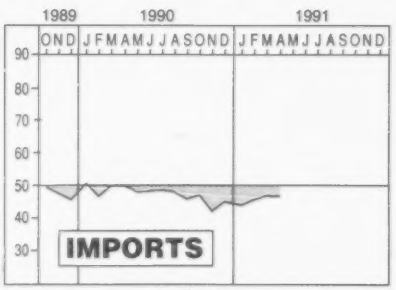

## PERCENT REPORTING

| Capital Expenditures | Hand to Mouth | 30 Days | 60 Days | 90 Days | 6 Mos. and Longer | 1 Year + Days | Avg. Days |
|---|---|---|---|---|---|---|---|
| April | 12 | 9 | 16 | 19 | 33 | 11 | 129 |
| March | 12 | 8 | 12 | 23 | 32 | 13 | 135 |
| February | 12 | 8 | 13 | 21 | 34 | 12 | 134 |
| January | 12 | 7 | 14 | 21 | 32 | 14 | 138 |

| Production Materials | Hand to Mouth | 30 Days | 60 Days | 90 Days | 6 Mos. and Longer | 1 Year + Days | Avg. Days |
|---|---|---|---|---|---|---|---|
| April | 18 | 42 | 26 | 11 | 2 | 1 | 46 |
| March | 19 | 40 | 25 | 13 | 2 | 1 | 47 |
| February | 21 | 40 | 25 | 10 | 2 | 2 | 48 |
| January | 20 | 39 | 28 | 11 | 1 | 1 | 45 |

| MRO Supplies | Hand to Mouth | 30 Days | 60 Days | 90 Days | 6 Mos. and Longer | 1 Year + Days | Avg. Days |
|---|---|---|---|---|---|---|---|
| April | 47 | 40 | 10 | 3 | 0 | 0 | 23 |
| March | 46 | 41 | 10 | 3 | 0 | 0 | 23 |
| February | 41 | 45 | 12 | 2 | 0 | 0 | 25 |
| January | 45 | 43 | 9 | 2 | 1 | 0 | 24 |




New Export Orders continued to exhibit a strong rate of growth in April. The New Export Orders Index, not seasonally adjusted, registered 56.5%, down from 58.5%, which was the highest since April 1990. The percentage of members exporting remained the same as last month, 75%.

Imports declined again in April, marking a full year of decline. The Imports Index, not seasonally adjusted, remained at 47.0%, the same as in March. The percentage of members importing in April rose to 77%, up from 76% in March.

| New Export Orders | %Exporting | %Better | %Same | %Worse | Net | Index |
|---|---|---|---|---|---|---|
| April 1991 | 75 | 22 | 69 | 9 | +13 | 56.5 |
| March 1991 | 75 | 25 | 67 | 8 | +17 | 58.5 |
| February 1991 | 77 | 19 | 66 | 15 | + 4 | 52.0 |
| January 1991 | 75 | 25 | 63 | 12 | +13 | 56.5 |

| Imports | %Importing | %Higher | %Same | %Lower | Net | Index |
|---|---|---|---|---|---|---|
| April 1991 | 77 | 9 | 76 | 15 | – 6 | 47.0 |
| March 1991 | 76 | 10 | 74 | 16 | – 6 | 47.0 |
| February 1991 | 76 | 12 | 68 | 20 | – 8 | 46.0 |
| January 1991 | 79 | 9 | 68 | 23 | –14 | 43.0 |

## DATA AND METHOD OF PRESENTATION

The **Report on Business** is based on data compiled from monthly replies to questions asked of purchasing executives in over 300 industrial companies. Membership of the Business Survey Committee is diversified geographically, based on value added by state, and by Standard Industrial Classification (SIC) category, based on each industry's contribution to Gross National Product (GNP). Twenty industries in 50 states are represented on the committee.

Survey responses reflect the change, if any, in the current month compared to the previous month. For each of the indicators measured [New Orders, New Export Orders, Imports, Production, Supplier Deliveries, Inventories, Employment and Prices], this report shows the percentage reporting each response, the net difference between the number of responses in the positive economic direction (higher, better and slower for Supplier Deliveries), and the negative economic direction (lower, worse and faster for Supplier Deliveries), and the diffusion index.

Responses are raw data and are never changed. The diffusion index includes the percent of positive responses plus one-half of those responding the same (considered positive). The resulting single index number is then seasonally adjusted to allow for the effects of repetitive intra-year variations resulting primarily from normal differences in weather conditions, various institutional arrangements and differences attributable to non-moveable holidays. All seasonal adjustment factors are supplied by the U.S. Department of Commerce and are subject annually to relatively minor changes when conditions warrant them. A sufficient history is not yet available for the New Export Orders and Imports Indexes to determine seasonal adjustment factors. Therefore, these two indexes are not seasonally adjusted. The Purchasing Managers' Index (PMI) is a composite index based on the seasonally adjusted diffusion indexes for five of the indicators (New Orders, Production, Supplier Deliveries, Inventories and Employment) with varying weights applied.

Diffusion indexes have the properties of leading indicators and are convenient summary measures showing the prevailing direction of change and the scope of change. An index reading above 50% indicates that the economy is generally expanding; below 50%, that the economy is generally declining. The distance from 50% is indicative of the strength of the expansion or decline.

Responses to Buying Policy reflect the percent reporting the current manufacturing lead time, the approximate weighted number of days ahead for which commitments are being made for Production Materials, Capital Expenditures and Maintenance, Repair and Operating (MRO) Supplies, expressed as hand-to-mouth (5 days), 30 days, 60 days, 90 days, 6 months (180 days), a year or more (360 days) and the weighted average number of days. These responses are raw data, never revised and not seasonally adjusted since there is no significant seasonal pattern.

# Report On Business®

# Overall Economy Grew in May; Manufacturing Decline Slows Further; PMI Rises to 45.4%

## MAY REPORT

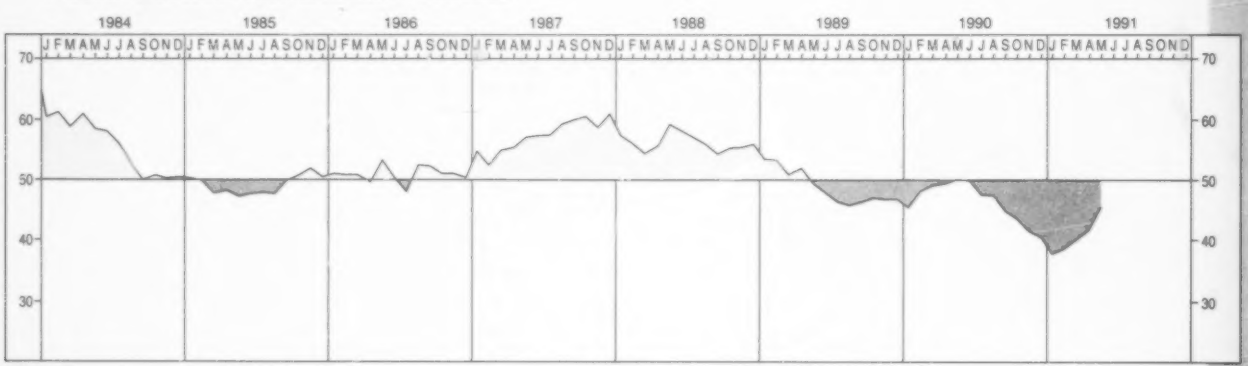
**Analysis by the National Association of Purchasing Management Business Survey Committee; chair, Robert J. Bretz, C.P.M., director of corporate purchasing, Pitney Bowes, Inc.**

The U.S. economy grew in May as indicated by the PMI surpassing the 44% level, which ended a string of seven monthly declines. However, the manufacturing economy still below 50%, continued to decline but at a lesser rate of change for the fourth straight month, say the nation's purchasing executives in their latest **Report on Business.** The Production Index declined in May for the 10th consecutive month, but for the fourth straight time, the rate of decline was less than the previous month. The New Orders Index increased sharply in May and expanded for the first time since June 1990. New Export Orders also expanded in May, although at a lesser rate than last month. Imports continued to decline for the 13th consecutive month.

The Employment Index declined in May for the 28th consecutive month, although at the lowest rate of change in five months. The Supplier Deliveries Index declined for the ninth consecutive month, but at the lowest rate in five months. The Inventories Index declined in May for the 30th consecutive month. The Price Index declined in May for the fifth consecutive month and, except for last month, reached the lowest in nine years. Further declines in the Production Price Index and low increases in the Consumer Price Index should follow.

The **Report** was issued by Robert J. Bretz, C.P.M., chairman of the National Association of Purchasing Management's Business Survey Committee, and director of corporate purchasing at Pitney Bowes, Inc. Said Bretz, "Now that the overall economy has begun to expand again, the next milestone for improvement is the end of the decline in the manufacturing sector. With inventories at very low levels and inflation in check, if not declining, the manufacturing economy appears poised to grow. If the future rate of improvement in the economy equals the last two months, the manufacturing sector could be expanding again in July."

### PURCHASING MANAGERS' INDEX

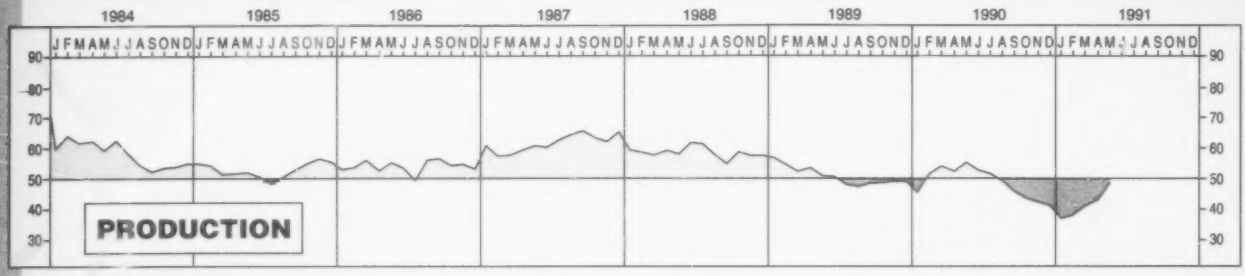



### PURCHASING MANAGERS' INDEX (PMI)

| | | | |
|---|---|---|---|
| May '90 | 50.1 | December '90 | 40.5 |
| June '90 | 49.9 | January '91 | 37.7 |
| July '90 | 47.6 | February '91 | 38.5 |
| August '90 | 47.4 | March '91 | 40.0 |
| September '90 | 44.9 | April '91 | 42.1 |
| October '90 | 43.6 | May '91 | 45.4 |
| November '90 | 41.6 | | |

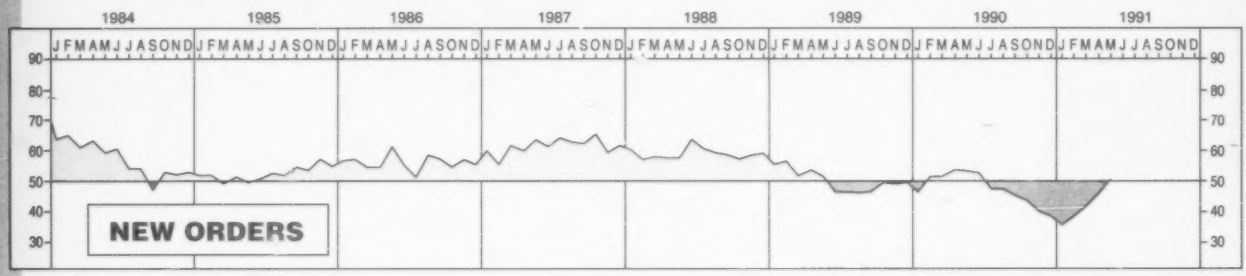
The Purchasing Managers' Index (PMI) rose to 45.4% in May, up sharply from 42.1% in April. May marks the fourth consecutive month the PMI has increased from the previous month and the highest it has been since August 1990. A reading below 50% indicates that the manufacturing economy is generally declining; above 50%, that it is generally expanding. Bretz added, "After seven consecutive months below 44%, the PMI breached the 44% barrier, beyond which is generally indicative of growth in the overall economy. In the 1981/1982 recession, the PMI was below 44% for 16 months."

# BUSINESS



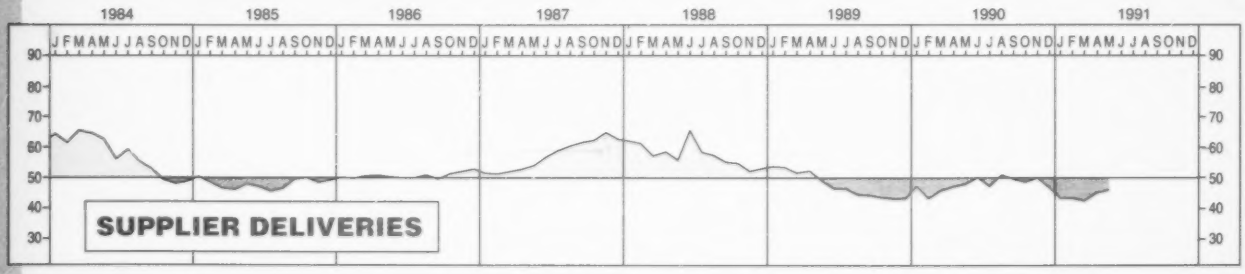

Production declined in May for the 10th consecutive month, although the rate of decline lessened successively for the fourth month in a row. The Production Index rose to 48.8%, up sharply from 43.1% in April and the highest since August 1990 (49.2%). If the increases in Production continue to reflect the sharp increases in New Orders, growth in Production will take place as early as June 1991.

| Production | %Better | %Same | %Worse | Net | Index |
|---|---|---|---|---|---|
| May 1991 | 21 | 57 | 22 | -1 | 48.8 |
| April 1991 | 17 | 60 | 23 | -6 | 43.1 |
| March 1991 | 15 | 54 | 31 | -16 | 41.0 |
| February 1991 | 15 | 49 | 36 | -21 | 38.1 |




The New Orders Index in May ended 10 consecutive monthly declines. The index rose in May to 50.6%, up sharply from 45.9% in April. The index registered above 50%, generally indicative of growth, and reached the highest since June 1990 (52.7%). This growth in the engine of the manufacturing economy should result in continued improvement in Production.

| New Orders | %Better | %Same | %Worse | Net | Index |
|---|---|---|---|---|---|
| May 1991 | 28 | 47 | 25 | +3 | 50.6 |
| April 1991 | 26 | 49 | 25 | +1 | 45.9 |
| March 1991 | 20 | 47 | 33 | -13 | 41.5 |
| February 1991 | 17 | 45 | 38 | -21 | 38.3 |




The Supplier Deliveries Index declined in May for the ninth consecutive month, although the rate (46.0%) was the lowest since December 1990 (46.8%). This gradual increase reflects the improvement in Production; however, the Supplier Deliveries Index is lagging that improvement, when generally it leads the Production Index.

| Supplier Deliveries | %Slower | %Same | %Faster | Net | Index |
|---|---|---|---|---|---|
| May 1991 | 3 | 87 | 10 | -7 | 46.0 |
| April 1991 | 3 | 84 | 13 | -10 | 45.1 |
| March 1991 | 3 | 81 | 16 | -13 | 42.4 |
| February 1991 | 4 | 78 | 18 | -14 | 43.3 |

### IN SHORT SUPPLY

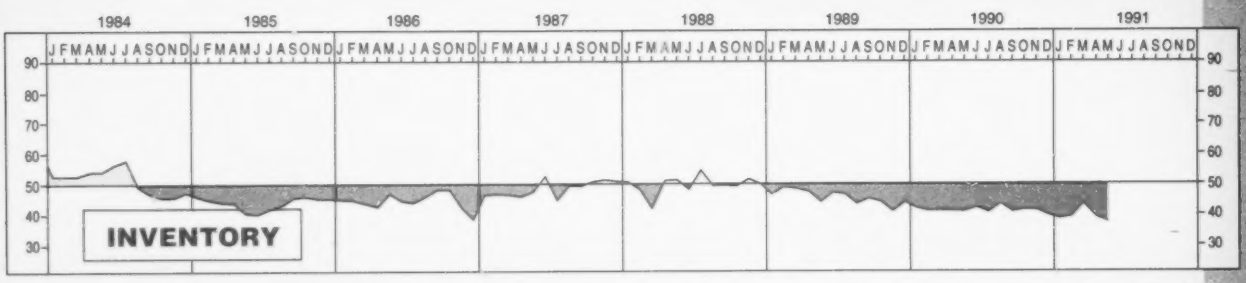
**Ethanolamine** — Used heavily in polishes, hair waving solutions, and dispersing agents and in the manufacture of antibiotics; **Caustic Soda/Soda Ash** — 48th consecutive month (used heavily in paper making, petroleum refining, and soap making); **Methyl Ethyl Ketone (MEK)** — 9th consecutive month (used heavily as a chemical solvent in surface coatings, and making resins); **Timber** — Essentially only in the Northwestern U.S., where conservationists' efforts have been successful in reducing the Douglas Fir acreage the government will allow to be cut.

### UP IN PRICE

**Ferro Alloys** — Used heavily as a coating for welding rods; **Nickel** — 2nd consecutive month, after being reported down in price in March for the 5th consecutive month (used in making stainless steel, plating metals, and batteries); **Rosin-based Chemicals** — 2nd consecutive month (used in making varnish, varnish and paint dryers, inks, soap, waxes, polishes, floor coverings, paper, plastic, and sizing); **Tall Oil-Crude and Fatty Acid** — 3rd consecutive month (used in making soap, greases, paint, linoleum, rubber formulations, and cutting oils); **Toluene** — After being reported down in price for 5th consecutive month in April (used heavily in making explosives, dyes, and benzoic acid, as a solvent in paint and as a gasoline additive); **Timber** — 2nd consecutive month; **Cotton Fabric** — 5th consecutive month; **Fiberglass** — After being reported down in price in April; **1 Megabyte DRAMS** — 4th consecutive month; **Gasoline; High Fructose Corn Syrup** — 2nd consecutive month; **Apple Juice Concentrate** — 2nd consecutive month; **Soybean Meal** — 3rd consecutive month.

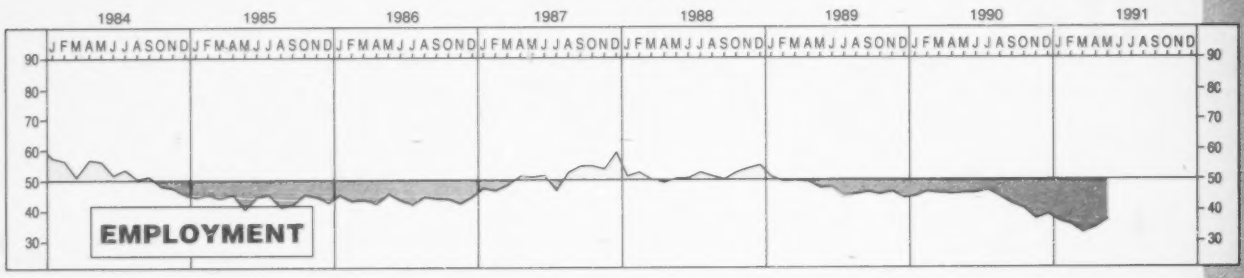
### DOWN IN PRICE

**Aluminum** — 7th consecutive month; **Copper** — 7th consecutive month;



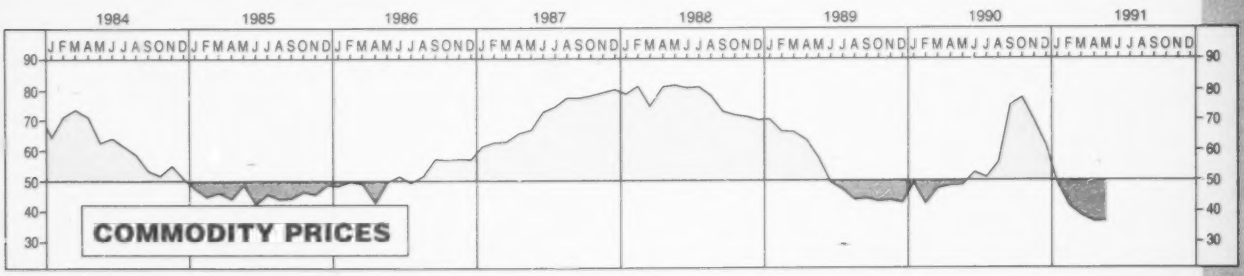

Inventories declined in May for the 30th consecutive month. The Inventories Index decreased to 37.5%, down from 39.0% in April and the lowest since January 1983 (36.3%). This low level of Inventories should result in sustained growth as the economy begins to recover from the recession.

| Inventories | %Higher | %Same | %Lower | Net | Index |
|---|---|---|---|---|---|
| May 1991 | 13 | 49 | 38 | -25 | 37.5 |
| April 1991 | 14 | 53 | 33 | -19 | 39.0 |
| March 1991 | 18 | 55 | 27 | -9 | 43.5 |
| February 1991 | 15 | 52 | 33 | -18 | 39.2 |




Employment declined in May, although at a lesser rate than in April. The Employment Index rose to 37.0%, up sharply from 34.4% in April, and the highest since December 1990 (38.7%). As suggested last month, even though Employment is a lagging indicator, March may have been the bottom of the decline in manufacturing employment, and May the second month in an upward trend.

| Employment | %Higher | %Same | %Lower | Net | Index |
|---|---|---|---|---|---|
| May 1991 | 5 | 65 | 30 | -25 | 37.0 |
| April 1991 | 8 | 57 | 35 | -27 | 34.4 |
| March 1991 | 5 | 58 | 37 | -32 | 32.7 |
| February 1991 | 5 | 60 | 35 | -30 | 35.4 |



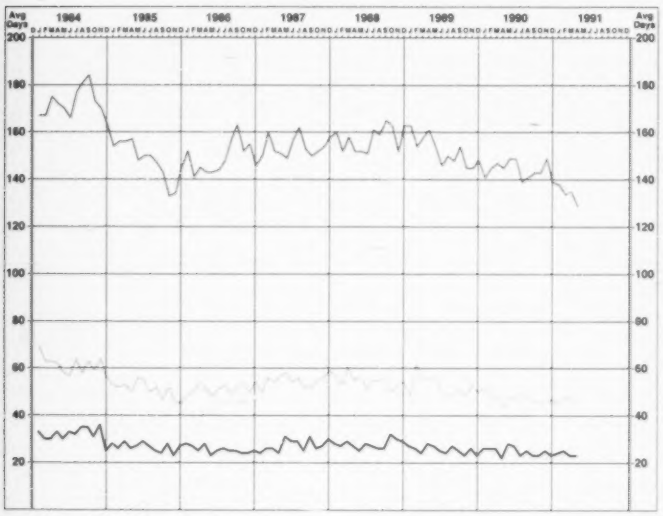

Prices continued to decline in May for the fifth consecutive month. The Price Index rose to 36.9%, up slightly from 36.3% in April. Except for April 1991, the index is at the lowest level since April 1982 35.7%. Also, after 53 consecutive months of being reported up in price, Caustic Soda/Soda Ash was not reported higher priced in May.

| Prices | %Higher | %Same | %Lower | Net | Index |
|---|---|---|---|---|---|
| May 1991 | 5 | 64 | 31 | -26 | 36.9 |
| April 1991 | 10 | 60 | 30 | -20 | 36.3 |
| March 1991 | 8 | 64 | 28 | -20 | 38.6 |

**Magnesium** — 4th consecutive month (used heavily as a constituent of light alloys for manufacturing precision instruments; **Steel** — 4th consecutive month; **Steel Scrap** — 7th consecutive month; **Zinc** — 10th consecutive month (used in galvanizing sheet iron, as an ingredient of alloys such as brass and bronze, as a protective coating to prevent corrosion of other metals; **Bearings** — 6th time in 7 months; **Uncoated Offset Paper** — 5th consecutive month; **Folding Cartons; Corrugated Shipping Containers** — 15th time in 16 months; **Linerboard** — 3rd consecutive month (used heavily in making corrugated cartons); **Paper Bags** — 2nd consecutive month; **Wood Pulp** — 3rd consecutive month; **Alcohols** — 3rd consecutive month; **Ethylene** — 4th consecutive month (used heavily in making ethylene oxide, plastic resins, and glycols); **Ethylene Glycol** — 2nd time in 3 months (used heavily in making antifreeze, brake fluid, plastic paint, and ink); **Methanol** — After being reported up in price for 3rd consecutive month in April 1991 (used heavily as a solvent, a motor fuel additive, and in synthesizing other chemicals); **Phenol** — 3rd consecutive month (used heavily in making phenolic resins); **Phthalic Anhydride** — 2nd time in 4 months (used heavily in making artificial resins, benzoic acid, and phthalates); **Plastic Resins** — 3rd consecutive month; **Plastic Products; Polyethylene** — 3rd consecutive month (used heavily in making plastic materials); **Polypropylene** — 5th consecutive month (used heavily in making plastic fabric, yarns, carpets, and packaging materials); **Polystyrene** — 4th consecutive month; **Propylene** — 4th consecutive month (used heavily in making polypropylene plastic and acetone, isopropyl alcohol, phenol, propylene oxide, and other chemicals); **Styrene** — 6th consecutive month; **Coal; Fuel Oil** — 4th consecutive month; **Natural Gas** — 5th consecutive month; **Lube Additives** — 2nd time in 3 months; **Wax; Glass** — 2nd time in 3 months; **Corn; Sugar** — 9th time in 10 months.

## BUYING POLICY

Average leadtimes for Capital Expenditures, a lagging indicator, remained the same in May as in April (129 days). The 129 days is the lowest since NAPM began tracking leadtimes in January 1975. The average leadtimes for Production Materials lengthened to 47 days, up from 46 days in April. The average leadtimes for Maintenance, Repair, and Operating (MRO) Supplies also increased in May to 24 days, up from 23 days the previous two months.

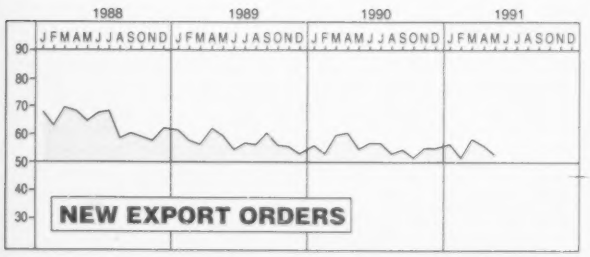



## PERCENT REPORTING

| Capital Expenditures | Hand to Mouth | 30 Days | 60 Days | 90 Days | 6 mos. and Longer | 1 year + Days | Avg. Days |
|---|---|---|---|---|---|---|---|
| May 1991 | 14 | 8 | 11 | 24 | 32 | 11 | 129 |
| April 1991 | 12 | 9 | 16 | 19 | 33 | 11 | 129 |
| March 1991 | 12 | 8 | 12 | 23 | 32 | 13 | 135 |
| February 1991 | 12 | 8 | 13 | 21 | 34 | 12 | 134 |

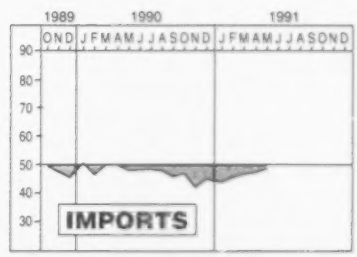
| Production Materials | Hand to Mouth | 30 Days | 60 Days | 90 Days | 6 mos. and Longer | 1 year + Days | Avg. Days |
|---|---|---|---|---|---|---|---|
| May 1991 | 21 | 40 | 27 | 8 | 2 | 2 | 47 |
| April 1991 | 18 | 42 | 26 | 11 | 2 | 1 | 46 |
| March 1991 | 19 | 40 | 25 | 13 | 2 | 1 | 47 |
| February 1991 | 21 | 40 | 25 | 10 | 2 | 2 | 48 |

| MRO Supplies | Hand to Mouth | 30 Days | 60 Days | 90 Days | 6 mos. and Longer | 1 year + Days | Avg. Days |
|---|---|---|---|---|---|---|---|
| May 1991 | 45 | 43 | 7 | 5 | 0 | 0 | 24 |
| April 1991 | 47 | 40 | 10 | 3 | 0 | 0 | 23 |
| March 1991 | 46 | 41 | 10 | 3 | 0 | 0 | 23 |
| February 1991 | 41 | 45 | 12 | 2 | 0 | 0 | 25 |




New Export Orders continued to grow in May, although at a lesser rate of growth than in the previous two months. The New Export Orders Index, not seasonally adjusted, was 53.0% in May, down from 56.5% in April. The percentage of members exporting increased to 78, up from 75 in April and March 1991.

| New Export Orders | %Exporting | %Better | %Same | %Worse | Net | Index |
|---|---|---|---|---|---|---|
| May 1991 | 78 | 18 | 70 | 12 | + 6 | 53.0 |
| April 1991 | 75 | 22 | 69 | 9 | +13 | 56.5 |
| March 1991 | 75 | 25 | 67 | 8 | +17 | 58.5 |
| February 1991 | 77 | 19 | 66 | 15 | + 4 | 52.0 |




Imports declined once again in May, for the 13th consecutive month. The Imports Index, not seasonally adjusted, registered 48.0%, up from 47.0% in April and March. The percentage of members importing in May remained the same as last month (77).

| Imports | %Exporting | %Better | %Same | %Worse | Net | Index |
|---|---|---|---|---|---|---|
| May 1991 | 77 | 10 | 76 | 14 | -4 | 48.0 |
| April 1991 | 77 | 9 | 76 | 15 | -6 | 47.0 |
| March 1991 | 76 | 10 | 74 | 16 | -6 | 47.0 |
| February 1991 | 76 | 12 | 68 | 20 | -8 | 46.0 |

## DATA AND METHOD OF PRESENTATION

The **Report on Business** is based on data compiled from monthly replies to questions asked of purchasing executives in over 300 industrial companies. Membership of the Business Survey Committee is diversified geographically, based on value added by state, and by Standard Industrial Classification (SIC) category, based on each industry's contribution to Gross National Product (GNP). Twenty industries in 50 states are represented on the committee.

Survey responses reflect the change, if any, in the current month compared to the previous month. For each of the indicators measured [New Orders, New Export Orders, Imports, Production, Supplier Deliveries (formerly Vendor Deliveries), Inventories, Employment and Prices], this report shows the percentage reporting each response, the net difference between the number of responses in the positive economic direction (higher, better and slower for Supplier Deliveries), and the negative economic direction (lower, worse and faster for Supplier Deliveries), and the diffusion index.

Responses are raw data and are never changed. The diffusion index includes the percent of positive responses plus one-half of those responding the same (considered positive). The resulting single index number is then seasonally adjusted to allow for the effects of repetitive intra-year variations resulting primarily from normal differences in weather conditions, various institutional arrangements and differences attributable to non-moveable holidays. All seasonal adjustment factors are supplied by the U.S. Department of Commerce and are subject annually to relatively minor changes when conditions warrant them. A sufficient history is not yet available for the New Export Orders and Imports Indexes to determine seasonal adjustment factors. Therefore, these two indexes are not seasonally adjusted. The Purchasing Managers' Index (PMI) is a composite index based on the seasonally adjusted diffusion indexes for five of the indicators (New Orders, Production, Supplier Deliveries, Inventories and Employment) with varying weights applied.

Diffusion indexes have the properties of leading indicators and are convenient summary measures showing the prevailing direction of change and the scope of change. An index reading above 50% indicates that the economy is generally expanding; below 50%, that the economy is generally declining. The distance from 50% is indicative of the strength of the expansion or decline.

Responses to Buying Policy reflect the percent reporting the current months lead time, the approximate weighted number of days ahead for which commitments are made for Production Materials, Capital Expenditures and Maintenance, Repair and Operating (MRO) Supplies, expressed as hand-to-mouth (5 days), 30 days, 60 days, 90 days, 6 months (180 days), a year or more (360 days) and the weighted average number of days. These responses are raw data, never revised and not seasonally adjusted since there is no significant seasonal pattern.

# Report On Business®

# Manufacturing Economy Grows in June; PMI Surges to 50.9%; Production and New Orders up Sharply

## JUNE REPORT

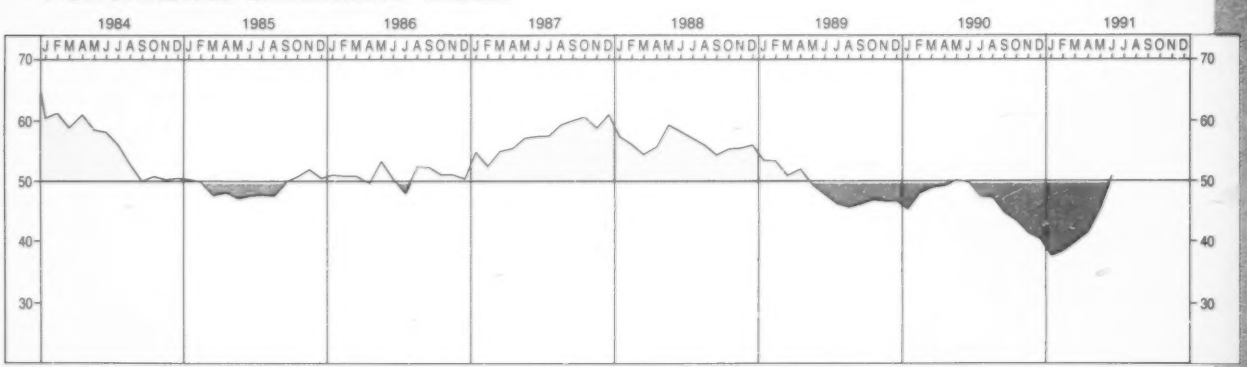
**Analysis by the National Association of Purchasing Management Business Survey Committee; chair, Robert J. Bretz, C.P.M., director of corporate purchasing, Pitney Bowes, Inc.**

The manufacturing economy grew in June, ending 12 consecutive months of declines, say the nation's purchasing executives in their latest **Report on Business.** Production also grew in June for the first time since July 1990. New Orders increased sharply for the second consecutive month. New Export Orders also expanded in June at a greater rate than in May. Imports continued to decline for the 14th consecutive month.

The Employment Index declined in June for the 29th consecutive month, but at the lowest rate of decline in 10 months. The Supplier Deliveries Index declined for the 10th consecutive month, but at the lowest rate of decline since November 1990. The Inventories Index declined in June for the 31st consecutive month and is at the lowest level since January 1983. Prices declined in June for the sixth consecutive month although the rate of decline was less for the second consecutive month. Declines in the Producer Price Index and small increases in the Consumer Price Index should continue for several months.

The **Report** was issued by Robert J. Bretz, C.P.M., chairman of the National Association of Purchasing Management's Business Survey Committee, and director of corporate purchasing at Pitney Bowes, Inc. Said Bretz, "With the Purchasing Managers' Index over 50%, the recession is essentially over for the manufacturing sector as well as the overall economy. The continued sharp increase in the engine of growth, New Orders, virtually assures continued growth in Production over the months ahead. With the Inventories Index at the lowest level since January 1983 (which was the second month after the previous recession ended), growth in inventory purchases will most likely provide further aid to the infant economic recovery."

### PURCHASING MANAGERS' INDEX

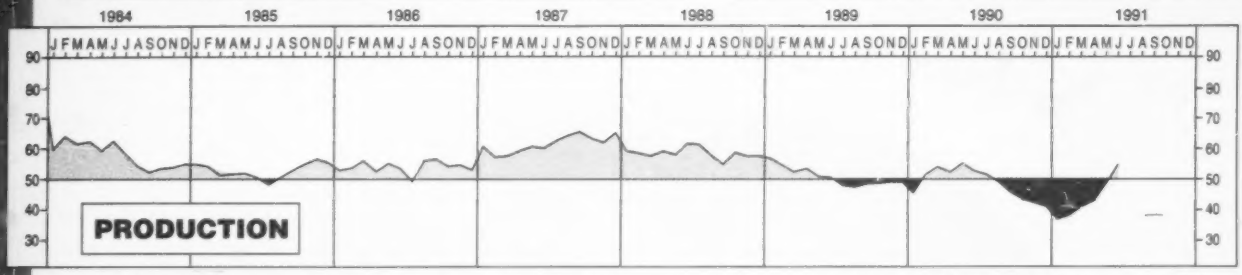



### PURCHASING MANAGERS' INDEX (PMI)

| | | | |
|---|---|---|---|
| June '90 | 49.9 | January '91 | 37.7 |
| July '90 | 47.6 | February '91 | 38.5 |
| August '90 | 47.4 | March '91 | 40.0 |
| September '90 | 44.9 | April '91 | 42.1 |
| October '90 | 43.6 | May '91 | 45.4 |
| November '90 | 41.6 | June '91 | 50.9 |
| December '90 | 40.5 | | |

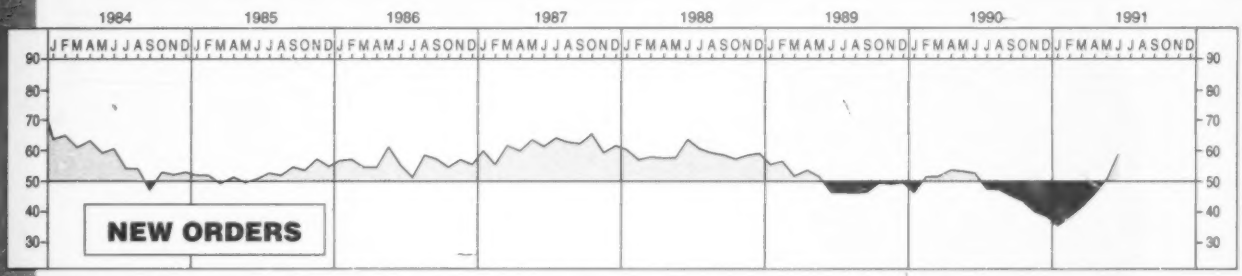
The Purchasing Managers' Index (PMI) rose to 50.9% in June, up sharply from 45.4% in May. June marks the fifth consecutive month the PMI has increased from the previous month and the first time it has registered over 50% since May 1990 (50.1%). A reading above 50% indicates that the manufacturing economy is generally expanding; below 50%, that it is generally declining. Bretz added, "This recession was shorter and less severe than the previous recession. This recession registered 12 months under 50% compared to 19 months in the 1981-82 recession. Also, during this current recession, the PMI registered under 44% for 7 months, which is generally indicative of a decline in the overall economy, compared to 16 months in the 1981-82 recession. The PMI averaged 43.3% in the recent recession compared to 40.0% in the 1981-82 recession. The low point reached in the recent recession was 37.7% compared to 35.5% in the 1981-82 recession. If the PMI remains unchanged at the June level for the balance of the year, then past experience indicates this would be consistent with real GNP growth of approximately 0.9% for all of 1991."

# BUSINESS



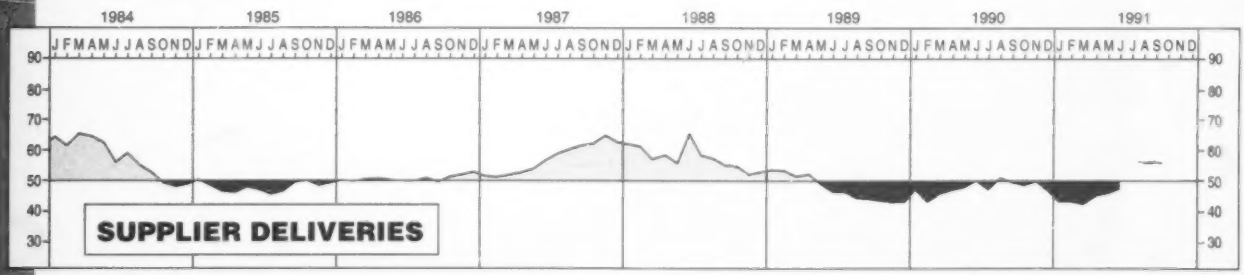

The Production Index in June ended 10 consecutive monthly declines. The Index rose to 55.0%, up sharply from 48.8% in May, largely as a consequence of the significant increase in New Orders in May and June. The index was the highest in a year (May 1990, 55.2%) and the first month above 50% (generally indicative of growth) since July 1990 (51.6%). The sharp increase in New Orders in June should assure continued growth in Production in the months ahead.

| Production | %Better | %Same | %Worse | Net | Index |
|---|---|---|---|---|---|
| June 1991 | 31 | 51 | 18 | +13 | 55.0 |
| May 1991 | 21 | 57 | 22 | -1 | 48.8 |
| April 1991 | 17 | 60 | 23 | -6 | 43.1 |
| March 1991 | 15 | 54 | 31 | -16 | 41.0 |




The New Orders Index rose in June to 59.1%, up sharply from 50.6% in May, and is the highest since August 1988 (59.2%). The increase of 8.5 points is the largest one-month increase since the 10.3 increase from January to February 1983, which were the second and third months after the November 1982 trough of the previous recession. The 1983 surge in New Orders resulted in significant increases in Production and the June increase should do likewise.

| New Orders | %Better | %Same | %Worse | Net | Index |
|---|---|---|---|---|---|
| June 1991 | 38 | 42 | 20 | +18 | 59.1 |
| May 1991 | 28 | 47 | 25 | +3 | 50.6 |
| April 1991 | 26 | 49 | 25 | +1 | 45.9 |
| March 1991 | 20 | 47 | 33 | -13 | 41.5 |




The Supplier Deliveries Index declined in June for the 10th straight month, although the rate of decline was less for the third consecutive month. The failure of this index to rise above 50% can most likely be attributed to the fact that purchasers have not stopped reducing their inventory levels, as confirmed by the low Inventories Index.

| Supplier Deliveries | %Slower | %Same | %Faster | Net | Index |
|---|---|---|---|---|---|
| June 1991 | 4 | 86 | 10 | -6 | 47.5 |
| May 1991 | 3 | 87 | 10 | -7 | 46.0 |
| April 1991 | 3 | 84 | 13 | -10 | 45.1 |
| March 1991 | 3 | 81 | 16 | -13 | 42.4 |

### IN SHORT SUPPLY

**Bearings** - 34th time in 35 months, generally only in military specification grade; **Ethanolamine** - 2nd consecutive month (used heavily in polishes, hair waving solutions, a dispersing agent, and in the manufacture of antibiotics); **Caustic Soda/Soda Ash** - 49th consecutive month (used heavily in paper making, petroleum refining, and soap making); **Tall Oil-Crude and Fatty Acid** - Used in making soap, greases, paint, linoleum, rubber formulations, and cutting oils; **Lumber** - Essentially only in the Northwestern U.S., where conservationists' efforts have been successful in reducing the Douglas Fir acreage the government will allow to be cut, causing shortages in lumber, chips for paper mills, and threatened reduction of log exports to the Pacific Rim; **Acetate Filter**.

### UP IN PRICE

**Silver**; **Engines**; **Acetone**; **Guaifenesin** - Used heavily in cough remedies as an expectorant and a muscle relaxant; **Phosphate Chemicals** - Used heavily in a variety of chemicals, pharmaceuticals, detergent, paper and food processing; **Rosin-based Chemicals** - 3rd consecutive month (used in making varnish, varnish and paint dryers, inks, soap, waxes, polishes, floor coverings, paper, plastic, and sizing); **Xylene** - Used heavily in making benzoic acid, phthalic anhydride, polyester fibers, and dyes; **Lumber**; **Plywood**; **1 Megabyte DRAMS** - 5th consecutive month; **Silicon Wafers**; **High Fructose Corn Syrup** - 3rd consecutive month; **Apple Juice Concentrate** - 3rd consecutive month; **Orange Juice**; **Sugar** - After being reported down in price in May for 9th time in 10 months.

### DOWN IN PRICE

**Aluminum** - 8th consecutive month; **Aluminum Products**; **Brass** - 6th time in 8 months; **Copper** - 8th consecutive month; **Ferro Alloys** - Used heavily as a coating for welding rods; **Lead** - 2nd time in 4 months; **Magnesium** - 5th consecutive month; **Nickel** - After being reported up in price in May for 2nd consecutive month; **Platinum** - 2nd time in 3 months; **Rhodium** - 3rd time in 4 months (used heavily as an alloy with platinum and as a corrosion-resistant electroplate for protection of